starting of the PRP), which the wireless memory tag may receive after a pulse transfer delay that may be caused, for example, by radio propagation delay and signal processing delays. The response pulses from the wireless memory tag may be sent with another pulse transfer delay. Assume that the pulses and the sensitivity periods each cover two ETUs and the wireless memory tag is constructed to advance its transmissions that much, so that if the wireless memory tag is touching the mobile wireless device Ax, the tail of a pulse sent by the wireless memory tag Bx is detected by the mobile wireless device Ax in one pulse. When such a wireless memory tag Bx is separated by a range matching with the radio propagation delay of one ETU, the response pulses become delayed by two ETUs (down- and uplinks combined), but still the response pulses co-inside with one ETU within the reception sensitivity period of the ultra-wide band transceiver. Thus, the wireless memory tag Bx may reside anywhere within the range corresponding to radio propagation during one ETU i.e. some 33 cm in case of 900 MHz, narrow-band synchronization signal.

[0153] In accordance with an example embodiment of the invention, an initial setup negotiation may be conducted between the mobile wireless device Ax and the wireless memory tag Bx, via the ultra-wide bandwidth connection **40***x* established between the devices. The mobile wireless device Ax may receive a radio frequency wireless message from the wireless memory tag Bx, indicating optical power requirements of the wireless memory tag Bx. In response, the mobile wireless device Ax may transmit optical power at a level based on the indicated optical power requirements. Then, in accordance with an example embodiment of the invention, the processor **20**A of the mobile wireless device Ax may switch on the camera flash **24** to transmit the optical power to the wireless memory device Bx, in response to the indicated optical power requirements.

[0154] In accordance with an example embodiment of the invention, the memory tag may have a single-frequency band radio interface. If single-frequency band radio interface is a narrow-band signal (like 13.56 MHz NFC), then the data-rate may be limited (but the efficiency of wireless powering is better). A limited data rate is useful when the memory size of the wireless memory tag is limited. If single-frequency band radio interface is a wide-band signal, the data-rate is better for fast memory access in the tag (but efficiency of wireless powering decreases). A high data rate supports larger memories, but wireless powering limits the memory capacity and speed of memory.

[0155] In accordance with an example embodiment of the invention, the wireless memory tag may have a dual-frequency band radio interface. By using two frequencies (one primarily for wireless powering, and the other one for high bandwidth) the performance of the wireless memory tag may be improved.

[0156] In both cases additional optical powering improves the performance of memory access in wireless memory tag (results as better overall/end-to-end performance).

[0157] FIG. **1**D is an example network diagram of the mobile wireless device A and the wireless memory tag B of FIG. **1**A, where a feedback signal **52** from the NFC controller **16**B of the wireless memory tag B indicates the received level of optical power **50** being delivered to its photovoltaic cell **30**. In response, the mobile wireless device A uses the feedback signal **52** to generate a lens direction control signal **25** to the lens of the LED flash **24**. The lens direction control signal may be to transversely sweep the direction of the optical beam **50** issuing from the LED flash **24** so as to target the beam **50** more closely onto the photovoltaic cell **30** in the wireless memory tag B, in accordance with example embodiments of the invention. In an example embodiment of the invention, the feedback signal **52** may be used by mobile wireless device A to display information to the user, on a graphical user interface (not shown). The information may be a graphical indication of how to reposition the mobile wireless device A with respect to the wireless memory tag B, so as to target the beam **50** more closely onto the photovoltaic cell **30** in the wireless memory tag B. In an example embodiment of the invention, the feedback signal **52** may be used by mobile wireless device A to control the intensity of the optical power **50** being delivered by the mobile wireless device A to the photovoltaic cell **30** of the wireless memory tag B. In an example embodiment of the invention, the feedback signal **52** may be used by mobile wireless device A to generate a vibratory signal to the user. The vibratory signal may indicate how to reposition the mobile wireless device A with respect to the wireless memory tag B, so as to target the beam **50** more closely onto the photovoltaic cell **30** in the wireless memory tag B.

[0158] FIG. **2**A is an example network diagram of a first mobile wireless device A and a second mobile wireless device B', performing an initial setup negotiation using a Near Field Communications (NFC) connection **40**. The negotiation may establish supplementary optical power delivery from the first mobile wireless device A to the second mobile wireless device B', in accordance with example embodiments of the invention. In accordance with an example embodiment of the invention, both the mobile wireless device A and the mobile wireless device B' may be a communications device, PDA, cell phone, laptop or palmtop computer, or the like. Both the mobile wireless device A and the mobile wireless device B' may have the same or similar components as are depicted in the FIG. **1**A for the mobile device A and the wireless memory tag B.

[0159] In accordance with an example embodiment of the invention, the NFC controller **16**A of the mobile wireless device A may send an NFC interrogation signal to read the NFC controller **16**B of the mobile wireless device B' and receive a radio frequency NFC response signal **40** from the mobile wireless device B'. The response signal **40** may indicate that the mobile wireless device B' is capable of receiving optical powering. An initial setup negotiation may be conducted between the mobile wireless device A and the mobile wireless device B', via an NFC connection **40** established between the devices. The mobile wireless device A may receive a radio frequency wireless message from the mobile wireless device B', indicating optical power requirements of the mobile wireless device B'. In response, the mobile wireless device A may transmit optical power at a level based on the indicated optical power requirements. Then, in accordance with an example embodiment of the invention, the processor **20**A of the mobile wireless device A may switch on the camera flash **24** to transmit the optical power to the mobile wireless device B', in response to the indicated optical power requirements.

[0160] FIG. **2**B is an example network diagram of the first mobile wireless device A and the second mobile wireless device B' of FIG. **2**A, performing the supplementary optical power delivery **50** from the first mobile wireless device A to the second mobile wireless device B'. The optical power delivery may use the LED flash **24** of the camera component